

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-63 canceled.

64. (previously presented) A pharmaceutical composition comprising two adenovirus vectors, wherein each vector comprises a nucleic acid encoding a different neurotrophic factor.

65. (currently amended) The pharmaceutical composition according to claim 64, wherein the vectors comprise an expression cassette ~~for the simultaneous expression of two different neurotrophic factors~~ having the coding sequences of two different neurotrophic factors and having sequences that provide for the simultaneous expression of the two different neurotrophic factors.

66. (previously presented) The pharmaceutical composition according to claim 64, wherein the neurotrophic factors are selected from GDNF, BDNF, CNTF and NT3.

67. (currently amended) The pharmaceutical composition according to claim 66, wherein the adenovirus vectors are two replication defective recombinant ~~adenoviruses~~ adenovirus vectors, and wherein one adenovirus vector comprises a nucleic acid encoding CNTF and one adenovirus vector comprises a nucleic acid encoding GDNF.

68. (currently amended) The pharmaceutical composition according to claim 66, wherein the adenovirus vectors are two replication defective recombinant ~~adenoviruses~~ adenovirus vectors, and wherein one adenovirus vector comprises a nucleic acid encoding GDNF and one adenovirus vector comprises a nucleic acid encoding NT3.

69. (currently amended) The pharmaceutical composition according to claim 66, wherein the adenovirus vectors are two replication defective recombinant ~~adenoviruses~~ adenovirus vectors, and wherein one adenovirus vector comprises a nucleic acid encoding BDNF and one adenovirus vector comprises a nucleic acid encoding NT3.

70. (previously presented) The pharmaceutical composition according to claim 64, in an injectable form.

71. (previously presented) The pharmaceutical composition according to claim 64, further comprising riluzole.
72. (previously presented) The pharmaceutical composition according to claim 71, in an injectable form.
73. (previously presented) The pharmaceutical composition of claim 64, wherein one of the neurotrophic factors is CNTF.
74. (previously presented) The pharmaceutical composition of claim 64, wherein one of the neurotrophic factors is BDNF.
75. (previously presented) The pharmaceutical composition of claim 64, wherein at least one adenovirus vector is a replication defective recombinant adenovirus vector.
76. (previously presented) A method of treating amyotrophic lateral sclerosis comprising administering to a subject by systemic administration a pharmaceutical composition comprising an adenovirus vector comprising a nucleic acid encoding a neurotrophic factor, wherein the treatment results in a reduction in progressive motor neuron degeneration in said subject.
77. (previously presented) A method of treating amyotrophic lateral sclerosis comprising administering to a subject by systemic administration a pharmaceutical composition comprising an adenovirus vector comprising a nucleic acid encoding a neurotrophic factor, wherein the treatment results in a reduction in progressive denervation in said subject.
78. (previously presented) The method of claim 76, wherein the reduction in progressive motor neuron degeneration is detectable by a change in the rate of loss of the number of myelinated fibers in a peripheral nervous tissue.
79. (previously presented) The method of claim 77, wherein the reduction in progressive denervation is detectable by electromyography.
80. (previously presented) The method of claim 76, wherein the adenovirus vector comprises an expression cassette comprising a nucleic acid encoding a neurotrophic factor under the control of a transcriptional promoter.
81. (previously presented) The method of claim 77, wherein the adenovirus vector comprises an expression cassette comprising a nucleic acid encoding a neurotrophic factor under the control of a transcriptional promoter.

82. (previously presented) The method of claim 78, wherein the adenovirus vector comprises an expression cassette comprising a nucleic acid encoding a neurotrophic factor under the control of a transcriptional promoter.
83. (previously presented) The method of claim 79, wherein the adenovirus vector comprises an expression cassette comprising a nucleic acid encoding a neurotrophic factor under the control of a transcriptional promoter.
84. (previously presented) The method of claim 76, wherein the adenovirus vector comprises two expression cassettes, wherein each cassette comprises a nucleic acid encoding a different neurotrophic factor under the control of a transcriptional promoter.
85. (previously presented) The method of claim 77, wherein the adenovirus vector comprises two expression cassettes, wherein each cassette comprises a nucleic acid encoding a different neurotrophic factor under the control of a transcriptional promoter.
86. (previously presented) The method of claim 78, wherein the adenovirus vector comprises two expression cassettes, wherein each cassette comprises a nucleic acid encoding a different neurotrophic factor under the control of a transcriptional promoter.
87. (previously presented) The method of claim 79, wherein the adenovirus vector comprises two expression cassettes, wherein each cassette comprises a nucleic acid encoding a different neurotrophic factor under the control of a transcriptional promoter.
88. (previously presented) The method of claim 76, wherein the neurotrophic factor is GDNF, CNTF, BDNF or NT3.
89. (previously presented) The method of claim 77, wherein the neurotrophic factor is GDNF, CNTF, BDNF or NT3.
90. (previously presented) The method of claim 78, wherein the neurotrophic factor is GDNF, CNTF, BDNF or NT3.
91. (previously presented) The method of claim 79, wherein the neurotrophic factor is GDNF, CNTF, BDNF or NT3.
92. (currently amended) The method of claim 76, wherein the adenovirus vector comprises ~~an~~ a bicistronic expression cassette comprising two nucleic acid sequences, wherein each nucleic acid sequence encodes a different neurotrophic factor ~~under the control of a single transcriptional promoter.~~

93. (previously presented) The method of claim 92, wherein the neurotrophic factors are selected from GDNF, CNTF, BDNF and NT3.
94. (previously presented) The method of claim 93, wherein the neurotrophic factors are CNTF and GDNF.
95. (previously presented) The method of claim 92, wherein the transcriptional promoter is a constitutive eucaryotic or viral promoter.
96. (previously presented) The method of claim 95, wherein the promoter is selected from a CMV, RSV, or adenovirus promoter.
97. (previously presented) The method of claim 76, wherein the systemic administration comprises intravenous administration.
98. (previously presented) The method of claim 77, wherein the systemic administration comprises intravenous administration.
99. (previously presented) The method of claim 78, wherein the systemic administration comprises intravenous administration.
100. (previously presented) The method of claim 79, wherein the systemic administration comprises intravenous administration.
101. (previously presented) The method of claim 76, further comprising administering riluzole.
102. (previously presented) The method of claim 77, further comprising administering riluzole.
103. (previously presented) The method of claim 78, further comprising administering riluzole.
104. (previously presented) The method of claim 79, further comprising administering riluzole.
105. (previously presented) The method of claim 84, further comprising administering riluzole.
106. (previously presented) The method of claim 85, further comprising administering riluzole.
107. (previously presented) The method of claim 88, further comprising administering riluzole.

108. (previously presented) The method of claim 89, further comprising administering riluzole.

109. (previously presented) A method of treating amyotrophic lateral sclerosis comprising administering to a subject by systemic administration a pharmaceutical composition comprising an adenovirus vector comprising a nucleic acid encoding a neurotrophic factor, wherein the treatment results in increased lifespan for said subject.

110. (previously presented) The method of claim 109, wherein the adenovirus vector comprises an expression cassette comprising a nucleic acid encoding a neurotrophic factor under the control of a transcriptional promoter.

111. (previously presented) The method claim 109, wherein the adenovirus vector comprises two expression cassettes, wherein each cassette comprises a nucleic acid encoding a different neurotrophic factor under the control of a transcriptional promoter.

112. (previously presented) The method of claim 109, wherein the neurotrophic factor is one of GDNF, CNTF, BDNF or NT3.

113. (currently amended) The method of claim 109, wherein the adenovirus vector comprises an a bicistronic expression cassette comprising two nucleic acid sequences, wherein each nucleic acid sequence encodes a different neurotrophic factor ~~under the control of a single transcriptional promoter~~.

114. (previously presented) The method of claim 111, wherein the neurotrophic factors are selected from GDNF, CNTF, BDNF and NT3.

115. (previously presented) The method of claim 111, wherein the neurotrophic factors are CNTF and GDNF.

116. (previously presented) The method of claim 110, wherein the transcriptional promoter is a constitutive eucaryotic or viral promoter.

117. (previously presented) The method of claim 116, wherein the promoter is selected from a CMV, RSV, or adenovirus promoter.

118. (previously presented) The method of claim 109, wherein the neurotrophic factor is CNTF.

119. (previously presented) The method of claim 109, wherein the neurotrophic factor is GDNF.

120. (previously presented) The method of claim 109, wherein the neurotrophic factor is BDNF

121. (previously presented) The method of claim 109, wherein the neurotrophic factor is NT3.

122. (previously presented) The method of claim 109, further comprising administering riluzole.

123. (previously presented) The method of claim 111, further comprising administering riluzole.

124. (previously presented) The method of claim 112, further comprising administering riluzole.

125. (previously presented) The method of claim 109, wherein the systemic administration comprises intravenous administration.

126. (previously presented) The method of claim 111, wherein the systemic administration comprises intravenous administration.

127. (previously presented) The method of claim 112, wherein the systemic administration comprises intravenous administration.

128. (previously presented) The method of claim 122, wherein the systemic administration comprises intravenous administration.